ZINGER, N. M.

AID P - 2576

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 15/16

Author : Zinger, N. M., Kand. Tech. Sci.

Title : Conference on results of research and experiments in the field of district heating (Current Events)

Periodical : Teploenergetika, 8, 59-60, Ag 1955

Abstract : The article reports on the conference held in June in the All-Union Heat Engineering Institute im. Dzerzhinskiy and attended by engineers, scientists and workers of different institutes, as well as employees of the district heat networks in major Soviet cities. Some recommendations on distribution and operation of networks were made.

Institution : None

Submitted : No date

AID P - 4958

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 7/21

Authors : Sokolov, Ye. Ya., Dr. Tech. Sci., Ya. M. Rubinshteyn, Dr. Tech. Sci., N. M. Zinger, Kand. Tech. Sci.

Title : Power and economics of the district heating of large cities.

Periodical : Teploenergetika, 8, 31-38, Ag 1956

Abstract : The authors present the results of the comparison of different district heating systems (open and closed) fed from different heat and electric power plants. These plants are equipped by turbines of different types, and are located at different distances from the city. 7 tables, 4 diagrams.

Institution : All-Union Heat Engineering Institute

Submitted : No date

ANDREYEVA, K.S., inshener; ZILBER, M.M., kandidat tekhnicheskikh nauk; SOKOLOV, Ye.Ya., doktor tekhnicheskikh nauk.

Increasing the capacity of feed pumps by means of water-jet ejectors. Elek.sta. 27 no.1:16-20 Ja '56. (MLRA 9:6)
(Pumping machinery)

ZINGER, N.M.

ZINGER, N.M.

Using hydraulic elevators for water supply and in the construction of water pipelines. Vod. i san. tekh. no.12:13-15 D '57. (MIRA 11:1)
(Pumping machinery) (Water-supply engineering)

ZINGER, N.M.

ZINGER, N.M., kand.tekhn.nauk; ANDREYEVA, K.S., inshener.

Testing vapor ejector refrigerating apparatus. Prom.energ. 12 no.10:9-12 O '57. (MIRA 10:10)

1. Vsesoyuznyy teplotekhnicheskiy institut imeni F.E.Dzerzhinskogo.
(Refrigeration and refrigerating machinery)

ZINGER, N.M.

SOKOLOV, Ye.Ya., doktor tekhn. nauk; RUBINSHTEYN, Ya.M., doktor tekhn. nauk; ZINGER, N.M., kand. tekhn. nauk; BUNIN, V.S., inzh.; ANDRIANOVA, K.S., inzh.

Selection of a large-capacity turbine for district heating. Teploenergetika 5 no.4:3-11 Ap '58. (MIRA 11:5)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Steam turbines) (Heating from central stations)

ZINGER N.M.

96-4-2/24

AUTHORS: Zinger, N.M., (Candidate Tech.Sc.) and Lyakhov, O.G. (Candidate Tech.Sc.).

TITLE: Some problems concerning hydraulic conditions of district-heating systems during combined operation of heat and electric power stations. (Nekotoryye voprosy gidravlicheskogo rezhima teplovykh setey pri sovmestnoy rabote TETs)

PERIODICAL: Teploenergetika, 1958, 5 No.4, pp 11-16 (USSR)

ABSTRACT: In the design and operation of district-heating systems in which a number of power stations are connected in parallel on the heating side one of the most difficult questions is calculation of the appropriate hydraulic pressure. The hilliness of the locality, the need to prevent water from boiling in the heating system and the objections to excessive pressure in the power station heaters and in consumers' systems must all be considered. The main problems are those of regulating the flow of water from individual power stations and determining the 'water-sheds' in the supply and return mains (which often do not coincide); also of determining the head on the return headers of various power stations and selecting the point for adding make-up to the system, and so on. These

Card 1/2

96-4-2/24

Some problems concerning hydraulic conditions of district-heating systems during combined operation of heat and electric power stations

questions have never been analysed in a general way although they are of considerable practical importance. The article therefore gives a theoretical analysis of the location of the 'water-shed' in a system of two heat and electric power stations with pumping and throttling sub-stations. Figs. 2 and 3 graph pressures at these two sub-stations. In both cases the position of the 'water-shed" is altered and this changes the quantity of hot water delivered by each power station. A method of determining the best location for pumping or throttling sub-stations is described with reference to the graphs of Fig.4. The article then considers pressure changes on the intake headers of power stations operating in parallel when pumping and throttling sub-stations are included in the heating system. Pressure graphs showing the effect of a number of pumping sub-stations are given in Fig.5 and pressures in a system with three power stations in Fig.6. The hydraulic design of a ring-main

Card 2/2 system as illustrated in Fig.7 is also considered. There are 8 figures and 1 Russian reference.

ASSOCIATION: All-Union Thermo-Technical Institute. (Vsesoyuznyy Teplotekhnicheskiy Institut).

AVAILABLE: Library of Congress.

SOV/96-58-8-6/22

AUTHOR: Zinger, N.M. (Candidate of Technical Science)

TITLE: Investigation of a Water-air Ejector (Issledovaniye vodovozdushnogo ezhektora)

PERIODICAL: Teploenergetika, 1958, Nr 8, pp 26-31 (USSR)

ABSTRACT: Although water-air ejectors have been used for a long time they have been insufficiently studied, and published methods of design are not well-founded. This article describes recent investigations on water-air ejectors carried out by the All-Union Thermo-Technical Institute. A diagrammatic cross-section of the experimental ejector appears in Fig 1. Water was delivered to the ejector from a centrifugal pump at a measured rate. The air that was ejected was drawn from the room, passing through a measuring nozzle to the receiving chamber of the ejector. A throttle valve regulated the flow of air and the suction pressure. The compressed water-air mixture passed through a regulating valve before discharge. The main parts of the ejector were replaceable and provision was made for accurate assembly. Pressure measurements were taken at four points in the mixing chamber. Tests were made with nozzle diameters of 7, 11 and 16.5 mm. The corresponding ratios of chamber section to nozzle section were 13.8,

Card 1/5

5.6 and 2.5. The jet of water was still cylindrical when it reached the mixing chamber. At a distance of two or three diameters from the chamber inlet, the mixing chamber became filled with a white form and some reverse flow of this foam could be observed near the chamber wall. Curves of the pressure change along the ejector are given in Fig 2. The pressure at the inlet section of the mixing chamber is the suction pressure, the main pressure rise being in the diffusor. It is evident that the processes in the mixing-chamber of a water-air ejector are different from those in a single-phase jet ejector where the pressure increases because of equalisation of velocity profile of the mixed flow. In designing single-phase jet apparatus, the impulse equation or the particular case of the equation of quantity of motion are very useful. However, in a water-air ejector the mass of the ejected air is much less than that of the water and so does not affect the water velocity. Therefore, formal application of the impulse equation gives rise to

 difficulty. Exchange of impulse appears to occur between the water jet and the surrounding mass of emulsion in the

Investigation of a Water-air Ejector

mixing chamber; the latter's mass is comparable to that of the water and its velocity is zero. It has not been possible to derive from theory any numerical relations between the specific gravity of this emulsion and the rate of discharge such as could be used for ejector design. However, experimental work has shown that equations derived for water-water elevators can be applied to the design of water-air ejectors provided the factors are appropriately modified. Design equations derived in this way are offered. Equations (5) and (6) give the minimum suction pressures that can be attained with a water-jet ejector of given dimensions and rate of flow; they are valid for evacuation from low pressure and discharge to atmosphere (see dotted lines on Fig 3). For the ejector to operate stably, the pressure on the suction side must exceed these minimum values. Numerical examples are given. The graphs also show that the smaller the ratio of the mixing chamber section to that of the nozzle, the less the water pressure necessary to achieve a given vacuum; however, a reduction of this ratio also reduces the pumping speed. Curves of the maximum pressure-drop developed by a water-air ejector

Card 3/5

are given in Fig 4. Agreement between the experimental points and the theoretical curves is good. Characteristic curves for an ejector with a nozzle diameter of 11 mm and an area ratio of 5.6 are given in Fig 5. The characteristics were taken at constant flow-rate and inlet pressure, and increasing values of pressure beyond the ejector and various other conditions. Similar characteristics were obtained for ejectors with nozzles of different diameters. Test results on three ejectors are plotted in generalised co-ordinates in Fig 6. The solid line corresponds to volume ejection coefficients calculated from equation (1) and the dotted line to calculated characteristics for the ejectors under test with three values of area ratio. It is concluded that the ratio of the pressure-drop set up by the ejector to the pressure-drop in the nozzle is a parameter that uniquely determines the volume coefficient of ejection and hence the output of the ejector. Equation (1) gives with reasonable accuracy the achievable volume coefficient of ejection, and equation (3) gives the section ratio necessary to achieve this figure. Special tests were made to study

Investigation of a Water-air Ejector

the influence of water temperature on performance. Increasing the water temperature without altering other conditions raises the suction pressure by an amount corresponding to the increase in the saturated vapour p ressure of water at the operating temperature (see Fig 7). It is concluded from the test results that the design equations given are sufficiently accurate for practical purposes when designing a single-jet ejector. Further work will be required to derive design equations for other types of ejector, for example those having multiple jets.

There are 7 figures, 5 literature references (4 Soviet, 1 German)

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut (All-Union Thermo-Technical Institute)

1. Air ejectors--Design 2. Air ejectors--Performance
3. Water--Applications 4. Air ejectors--Test methods

SOV/96-58-11-8/21

AUTHOR: Berman, L.D., Doctor of Technical Science
Zinger, N.M., Candidate of Technical Science

TITLE: The Comparison of Various Types of Air Pump for Turbine Condensers (Sravneniye raznykh tipov vozdushnykh nasosov dlya kondensatorov turbin)

PERIODICAL: Teploenergetika 1958, Nr 11, pp 47-55 (USSR)

ABSTRACT: The relative merits of different types of air pump are first discussed in general terms. Serious objections can be raised against published technical and economic comparisons between different types of air pump and so the All-Union Thermo-Technical Institute made comparative calculations, the results of which are given below. The special features of the characteristics of different types of air pumps are first discussed and the requirements applicable to air pumps on condensers are considered. The major requirements of air pumps for condensers are that they should maintain a given pressure and should operate without overload - that is, without marked increase in suction pressure when the rate of pumping air is increased. The characteristics of

Card 1/6

The Comparison of Various Types of Air Pump for Turbine Condensers

steam jet ejectors have been investigated in some detail in previous work by the same authors. When pumping a saturated steam-water mixture at a given temperature, the characteristic of a steam-jet ejector (plotted as suction pressure against air-pumping speed) consists of two sections, a fairly flat working section from zero up to some definite rate of air flow and an overload section of steeper slope as plotted in Fig.1. The working sections of the characteristics corresponding to different mixture temperatures are practically straight parallel lines, for which a formula is given. When extracting dry air, the characteristic of a steam-jet ejector is similar to that described but the working section corresponds not to constant volume output but to a volume output that increases rapidly with the pumping speed (see Fig.1.). The water-jet ejector, unlike the steam-jet ejector, has a practically constant volume output when extracting dry air and a variable output when extracting steam/water

The Comparison of Various Types of Air Pump for Turbine Condensers

mixture. The characteristics when extracting dry air at different temperatures of the working water are given in Fig.2. Those relating to a saturated steam/water mixture appear in Fig.3. These characteristics depend upon the design and principal dimensions of the ejector and other variables. The relationship between the operation of the ejector and that of the condenser is considerably more complicated than in the case of a steam-jet ejector, since the water-jet ejector, besides its main function, also acts as an additional condenser. The volume output of mechanical vacuum pumps, belonging to the group of volume pumps, diminishes with reduction in the suction pressure. This causes mechanical pumps having a relatively large dead space (dry-piston types and water-seal types) to be of poor characteristics, so that when they are used the steam/water mixture extracted from the condenser must first be compressed to about 0.1 atm by means of an ejector. Special designs of vacuum pumps intended for operating at pressures down to 10^{-3} mmHg have more favourable characteristics which

The Comparison of Various Types of Air Pump for Turbine Condensers

are briefly described. Since the characteristics of water-jet ejectors are quite different from those of steam-jet ejectors and of mechanical pumps, it is not possible to compare the power consumption of different types of air pumps under identical conditions. In making the calculations it was assumed that comparable air pumps should be of equal reliability if the air pumping speed rose above the designed value. Therefore, the suction pressure for a given maximum working output should be the same for all. Under these conditions the suction pressure corresponding to the maximum-rated pumping rate is less for the water-jet ejector than for the steam-jet ejector and mechanical pump (see Fig.5.). The calculations were made with reference to a 100-MW turbine with given steam and vacuum conditions. Two methods of supplying steam-jet ejectors were considered; the power equivalent of the steam consumption was evaluated and the necessary formula is given. The characteristics and location of the

The Comparison of Various Types of Air Pump for Turbine Condensers

water-jet ejector are indicated. The volume outputs of the mechanical air pumps were the same as for the steam-jet ejectors. The calculated values of power consumption for the different types of air pump under the various conditions considered are tabulated; data are also given about the steam consumption of steam-jet ejectors and the water consumption of water-jet ejectors. It is concluded that mechanical pumps and steam-jet ejectors have the lowest power consumption provided the number of stages is well chosen and the coolers work efficiently. Mechanical air pumps operating with ballast gas have a similar power consumption as steam-jet ejectors and have the advantage of electric drive without the need for steam supply. They pull down initial vacuum quickly. They are, however, complicated and require constant inspection. Water-jet ejectors also use electric power instead of steam and they are simpler in operation than mechanical pumps but their power consumption is greater though they do give a better vacuum due to condensation of steam in the water jet.

Card 5/6

The Comparison of Various Types of Air Pump for Turbine Condensers

Because of this they are as economical as other types of pumps. If water-jet ejectors are used, the output of the water purification plant is increased but this too has economic compensations. Further theoretical and experimental study of water-jet ejectors is required to improve their design and to obtain further data about their operating characteristics. There are 6 figures, 1 table and 7 literature references all of which are Soviet.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut (All-Union Thermo-Technical Institute)

ZINGER, N.M.

PHASE I BOOK EXPLOITATION SOV/3871

Usovershenstvovaniye konstruktsiy i ekspluatatsii turbinnykh ustanovok; sbornik statey (Improvement in the Construction and Operation of Turbine Units; Collection of Articles) Moscow, Gosenergoizdat, 1959. 300 p. Errata slip inserted. 1,550 copies printed.

Eds. (Title page): Ya. M. Rubinshteyn, Professor, and A. V. Shcheglyayev, Corresponding Member, Academy of Sciences USSR; Ed. (Inside book): L. N. Sinel'nikova; Tech. Ed.: P. M. Aksenov.

PURPOSE: The book is intended for engineers specializing in the design and operation of turbine equipment.

COVERAGE: This collection of 22 articles deals with aspects of turbine operations, particularly, variations in the heat performance of steam turbines and computation of optimum parameters for gas turbines. Turbine performance indices and a number of methods for more accurate determination of natural parameters for specific cycles are presented. No personalities are mentioned. References follow several of the articles.

Shyakhin, P.N., and Ye.R. Plotkin. Investigation of the Forces Causing Vibration of Turbine Blades 163

The authors examine the problem of vibration of turbine blades when such vibrations are induced by flow irregularity. Dependence of the frequency of vibration on structural characteristics of blading as well as on the nature of flow obstructions is traced. Optimum designs for lacing wires and shrouds are suggested.

Zaydel'man, R.L. Comparative Analysis of the Damping Properties of Shrouding and Types of Wire Binding 172

Methods of fastening shrouds to buckets and types of lacing are analyzed with respect to vibration-damping efficiency. Curves are plotted indicating the dependence of damping properties on impact force.

Zaydel'man, R. L. Determination of the Logarithmic Decrements for Vibration Damping by Measuring the Frequency of Natural Vibrations 178

Methods of measuring the natural damping cycle of free vibrations are discussed, and values for the logarithmic decrement are deduced.

Syrochkina, L.P. Some Results of an Experimental Investigation of Michell-Type Thrust Bearings 182

The article deals with test stands and methods of testing Michell journal-type thrust bearings. Several lubrication systems are described with reference to service reliability and minimum friction losses.

Berman, L.D., and S.N. Fuks. Improved Sealing of Condenser Tubes in Steam Turbines 209

The article discusses and evaluates several methods and coating materials for protecting condensers from direct impingement of the steam. Several arrangements for "packing" tube ends into tube sheets and for sealing water boxes are evaluated.

Zinger, N.M. Methods of Designing Jet Condensers 219

Arrangements of multijet ejector condensers and layouts of stages are discussed and design and calculation methods given.

Molchanov, Ye.I., G.G. Ol'khovskiy, and G.I. [illegible]. Results of Final Adjustment and Testing of a 1,500-kwt Gas Turbine Plant 237

Pre-operational testing of a GT-600-1.5 turbine is described.

Molchanov, Ye.I. Selection of the Starting Procedure for a Gas Turbine 255

[illegible], [illegible] Experimental Stand for Testing Gas-Turbine Rotors for Thermal Fatigue 261

Allowable thermal-fatigue values and stress-distribution patterns for certain rotor elements with respect to their elasticity range are discussed.

Sharevskiy, A.V. Optimal Parameters for Inlet Temperatures in Multistage Gas-Turbine Plants 265

The problem of cycle temperatures versus pressure ratios per individual stage is discussed. Several methods for selecting the optimal thermal-efficiency regime are evaluated.

[illegible], Ya.L. Determination of the Most Effective Parameters for the Regeneration Cycle of a Gas-Turbine Plant 275

The author presents his own method of computation, applicable to a stationary plant, to determine the elements of regenerator effectiveness. The method can also be used for regenerators with cross-flow arrangement.

AVAILABLE: Library of Congress

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APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R002065220005-9"

ZINGER, N.M.

PHASE I BOOK EXPLOITATION SOV/4691

Sokolov, Yefim Yakovlevich, and Nikolay Mikhaylovich Zinger

Struynyye apparaty (Jet Apparatus) Moscow, Gosenergoizdat, 1960. 207 p.
5,000 copies printed.

Ed.: T.A. Kolach; Tech. Ed.: G.Ye. Larionov.

PURPOSE: This manual is intended for the engineering personnel of design and operational organizations and also for students of schools of higher education.

COVERAGE: The book discusses theory and methods for calculating jet apparatus. The basic design equations are illustrated by examples, and a classification of jet apparatus is given. According to the foreword, the authors have attempted to retain a unified approach although the types and applications of apparatus described vary greatly. Along with numerical relationships for determining the optimum parameters and basic dimensions of the apparatus, the authors present equations of the characteristics describing the operation of jet apparatus under a variable regime. Knowledge of characteristics is particularly important in selecting a control system and an efficient regime for utilization of jet

Card 1/6

apparatus. A large part of the experimental work was performed by the following members of the Laboratoriya teplofikatsii Vsesoyuznogo teplotekhnicheskogo instituta imeni Dzerzhinskogo (Thermal Laboratory of the All-Union Heat Engineering Institute imeni Dzerzhinskiy): R. Sazonov, K.S. Andreyeva, R.Kh. Zharova, V.B. Pavlonskiy, and S.Z. Prusilina. The authors thank L.D. Berman, Doctor of Technical Sciences, for advice, and T.A. Kolach, Candidate of Technical Sciences, for editing the book. Ye.Ya. Sokolov wrote chapters 1, 2, 4-6, and 8; N.M. Zinger wrote chapters 3, 7, 9, and 10. There are 101 references: 76 Soviet, 16 German, and 9 English.

TABLE OF CONTENTS:

Foreword 3

Ch. I. General Problems in the Calculation and Design of Jet Apparatus 5
1.1 Basic configuration of a jet apparatus 5
1.2 Development of the theory of a jet apparatus 6
1.3 Classification of a jet apparatus 9
1.4 Gas dynamic functions 12
1.5 Layouts of jet installations 14

S/096/60/000/012/006/008
E041/E421

AUTHORS: Zinger, N.M., Candidate of Technical Sciences, Andreyeva, K.S., Engineer and Vul'man, F.A., Engineer

TITLE: The Design of Multiple-Ring Hydraulic Networks on the "Ural" Electronic Computor

PERIODICAL: Teploenergetika, 1960, No.12, pp.44-52

TEXT: The All-Union Thermal Engineering Institute (ВТИ) has developed a general purpose programme suitable for calculations on any kind of hydraulic network. Similar uses of the "Ural" computor have been published before (Ref.3). The basic equations are Kirchhoff's for nodes

$$\Sigma V = 0 \qquad (1)$$

and meshes

$$\Sigma sV^2 = 0 \qquad (2)$$

where the latter takes account of the quadratic variation of pipe loss with flow. An arbitrary distribution of water flow is assumed which satisfied Eq.(1). The left-hand side of Eq.(2) will

Card 1/ 3

The Design of Multiple-Ring Hydraulic Networks on the "Ural" Electronic Computor

not then equal zero but will represent the non-viscous loss of pressure. This supplementary loss is redistributed and a further calculation made. The process is repeated until the value of the non-viscous loss does not change. Two common situations which give rise to distinctive sub-routines are shown in Fig.1a (an isolated ring) and Fig.1b (two adjacent rings). The method has been applied to a distinct heating system in Moscow consisting of 9 rings (Fig.2). The maximum allowable non-viscous pressure loss is 500 kg/m^2. In Fig.2a results are shown for a manual calculation by a skilled computer over a period of 15 hours. The upper figure quoted against each pipe is the initial assumption, the lower figure is the result after seven successive approximations. In Fig.2b the respective figures apply to a machine calculation. Fig.3 is a diagram illustrating the steps in the successive approximation. There are ten such steps and these are described in the text. The corresponding programme schematic is in Fig.4 and refers, of course, specifically to the "Ural" machine. It is

S/096/60/000/012/006/008
E041/E421

The Design of Multiple-Ring Hydraulic Networks on the "Ural" Electronic Computor

necessary to store within the machine the contents of Tables 1a and 1b giving flows and resistances in each length of pipe. The machine produced the 72 values in Table 2 in 12 minutes. Two sets of answers are given, corresponding to widely different initial assumptions. The effect on the final answer is slight. There are 4 figures, 2 tables and 6 references: 4 Soviet and 2 non-Soviet.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut - TsNIIKA
(All-Union Thermal Engineering Institute - TsNIIKA)

Card 3/3

ZINGER, Nikolay Mikhaylovich; DMITRIYEV, I.V., nauchn. red.

[Calculation and modeling of hydraulic conditions in thermal networks] Raschet i modelirovanie gidravlicheskikh rezhimov teplovykh setei. Moskva, Energiia, 1964. 183 p. (MIRA 17:9)

ZINGER, N.M., kand. tekhn. nauk; MIRKINA, A.I., inzh.

Choice of reference conditions and operating modes of the lead-in centralized heat supply. Elek. sta. 36 no.9:31-35 S '65.
(MIRA 18:9)

ZINGER, N.M., kand. tekhn. nauk

Qualitative and quantitative regulation of closed heat supply systems.
Teploenergetika 11 no.8:62-66 Ag '64. (MIRA 18:7)

1. Vsesoyuznyy teplotekhnicheskiy institut.

ZINGER, N.M.

Jet-type preheaters. Energetik. 13 no.2:28 F '65. (MIRA 18:6)

ZINGER, N.M., kand. tekhn. nauk; ANDREYEVA, K.S., inzh.

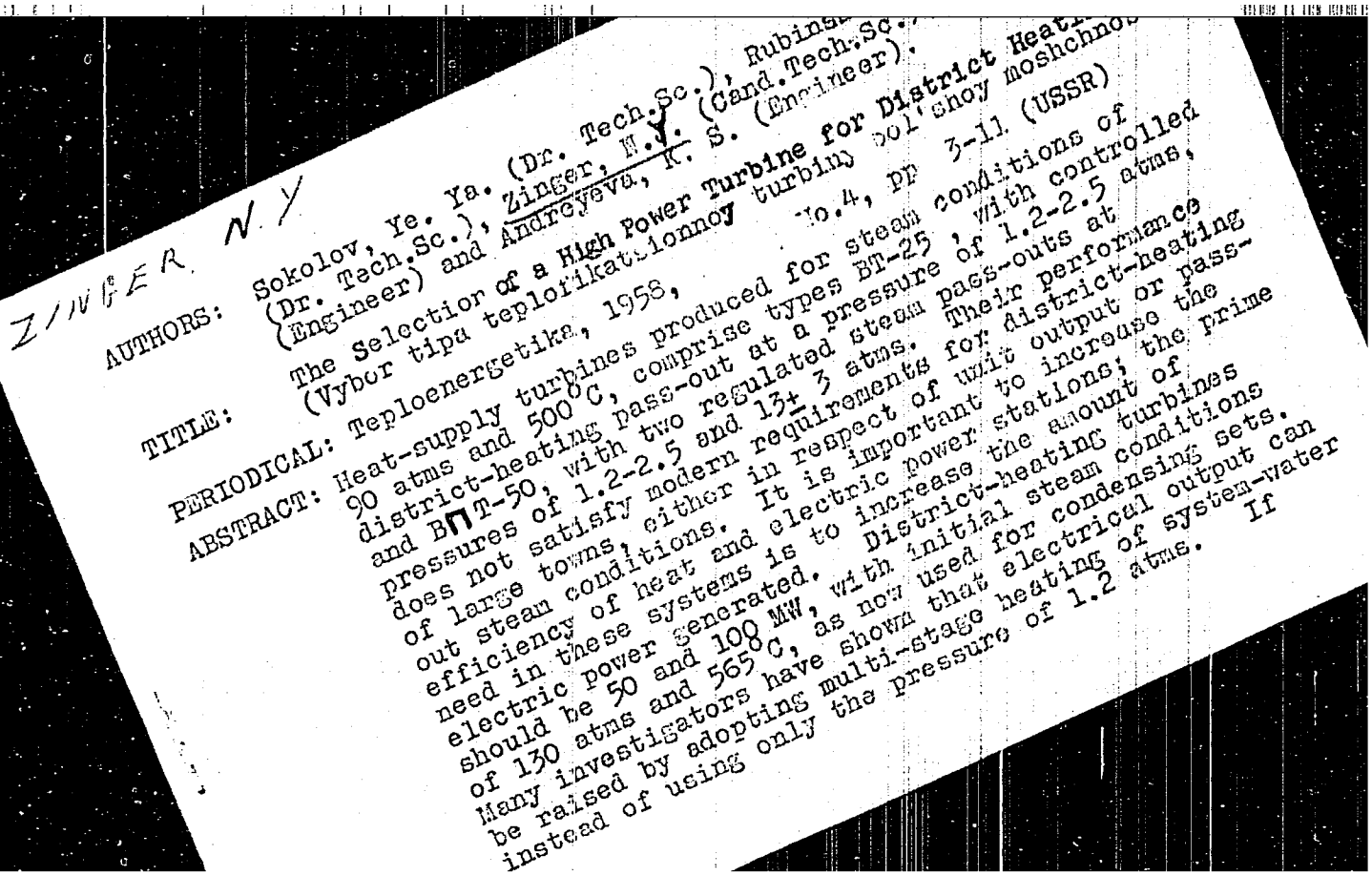
Study of the characteristics of power entrance to consumers with series connection of hot water supply heaters. Elek sta. 35 no.10:23-28 O'64. (MIRA 17:12)

AL'TSHUL', Adol'f Davydovich; ZINGER, N.M., red.; LARIONOV, G.Ye., tekhn. red.

[Hydraulic friction losses in pipelines] Gidravlicheskie poteri na trenie v truboprovodakh. Moskva, Gosenergoizdat, 1963. 255 p. (MIRA 16:5)
(Pipelines--Fluid dynamics)

SHCHUKIN, V.K.; KALMYKOV, I.I.; ZINGER, N.M., kand. tekhn.nauk, retsenzent; FAL'KO, O.S., inzh., red.; EL'KIND, V.D., tekhn. red.

[Gas ejectors]Gazostruinye kompressory. Moskva, Mashgiz, 1963. 145 p. (MIRA 16:8)
(Compressors)



ZINGER, N.Y.

AUTHORS: Sokolov, Ye. Ya. (Dr. Tech.Sc.), Rubinst[illegible] (Cand.Tech.Sc.), Zinger, N.Y. (Dr. Tech.Sc.) and Andreyeva, K. S. (Engineer).

TITLE: The Selection of a High Power Turbine for District Heat[illegible] (Vybor tipa teplofikatsionnoy turbiny bol'shoy moshchnos[illegible]

PERIODICAL: Teploenergetika, 1958, No.4, pp 3-11. (USSR)

ABSTRACT: Heat-supply turbines produced for steam conditions of 90 atms and 500°C, comprise types BT-25, with controlled district-heating pass-out at a pressure of 1.2-2.5 atms, and BПT-50, with two regulated steam pass-outs at pressures of 1.2-2.5 and 13± 3 atms. Their performance does not satisfy modern requirements for district-heating of large towns, either in respect of unit output or pass-out steam conditions. It is important to increase the efficiency of heat and electric power stations; the prime need in these systems is to increase the amount of electric power generated. District-heating turbines should be 50 and 100 MW, with initial steam conditions of 130 atms and 565°C, as now used for condensing sets. Many investigators have shown that electrical output can be raised by adopting multi-stage heating of system-water instead of using only the pressure of 1.2 atms. If

possible, the lower limit of steam pressure in the pass-out should be 0.5 atms. The pressure of the lower pass-out may be constant under all conditions, except nearly pure condensing conditions, or may be increased to 0.8-0.9 atms as suggested by B. V. Rudomino. It would be also advisable to provide for utilisation in the winter period of the ventilating flow of steam to the condenser. This steam can be used to heat make-up water in open heat-supply systems or to heat returned water in closed systems. Possible types of turbine are discussed. The present practice of having comparatively high reduction factors in urban district-heating stations gives a very high heat-loading on pass-out turbines and a very high steady electrical load throughout almost the entire heating season. Therefore, later stages of system-water heating could be supplied with steam from unregulated tappings. When the district-heating station is located out of town, the pressure level in the outermost unregulated tapping in the water system could be limited to about 4 atms. When the station is a considerable distance from the centre of the thermal load, a pressure of the order of 14-16 atms may be advisable in the last unregulated

The Selection of a High Power Turbine for District Heating Plants. 96-4-1/24

tapping on the run of water. The use of reheat in heat-supply stations gives less economy than it does in ordinary condensing stations. Nevertheless, reheat is advantageous in turbines with pass-outs at 0.5, 1.5 and 4 atms; it is inadvisable for turbines with pass-out pressures greater than 0.5- 2 - 6 - 16 atms. The manufacture of two types of 50 and 100 MW heat-supply turbines is recommended. One is a turbine with initial steam conditions of 130 atms, 565°C, with reheat only on the 100 MW size; the lower limit of pass-out pressure should be 0.5 atms, with unregulated district-heating pass-outs of 1.5 and 4 atms. This turbine is denoted $\Pi BT_{0.5-4}$. The second type of turbine has the same initial steam conditions without reheat and the same lower limit of pass-out pressure of 0.5 atms but with unregulated pass-outs for district heating at 2.0, 6.0 and 16.0 atms. This turbine will be denoted $\Pi BT_{0.5-16}$.

To evaluate these two types, calculations were made of steam flows from the pass-outs and of steam flows in the turbine sections; also of live steam consumption

Card 3/7 for various ambient temperatures, temperature curves and

systems of heat supply, etc. In comparing different types of turbine it was assumed that they supplied a region of the same calculated thermal loading. Since the turbine is designed for conditions in which the flow of steam to the condenser is a minimum, the requisite turbine power will vary for different systems of heat supply and temperature gradients, and in no case does it correspond to the standard output of turbo-generator. In comparing efficiencies of different types of turbine this is unavoidable and immaterial. The standard thermal loading of the district was taken as 400 M kcal/hr, of which half is provided for by pass-out steam; a boiler house provides for the remainder and for peak loads. The turbine designs were carried out for the thermal circuits shown in Figs. 1 and 2. For both turbines the feed water was assumed to be heated to a temperature of 232°C. The steam pressures in the low-pressure regenerative tappings corresponded to those for district-heating schemes. The efficiencies of the turbines were calculated in a way very similar to that formalised by the firm of General Electric in 1952. For turbine type Π BT$_{0.5}$ - 16, the

only case considered was that of stations outside towns, which requires that the system water be heated to 180°C. For turbine ПТ$_{0.5-4}$ the case considered was that of a series circuit comprising the peak boiler-house, the district-heating heaters and a station alternatively in or out of town. Temperature and water-flow graphs for the closed systems are given in Figs. 3 and 4 for both types of turbine. To compare these variants in respect of fuel consumption, the electrical outputs were equated in all cases to 135 MW. The respective fuel consumptions, obtained with identical thermal and electrical loadings, are given in Table 1, which shows that the use of turbine ПТ$_{0.5-4}$ instead of turbine ПТ$_{0.5-16}$ gives a fuel economy of about 5%. For turbine ПТ$_{0.5-4}$ the fuel consumption is about 1% less when the system water temperature is 150°C than when it is 180°C. The comparison also shows that for the same thermal and electrical loads turbine ПТ$_{0.5-4}$ has 7% less fuel consumption than turbine ВПТ-50-3. A technical and economic comparison is then made between the different types of heat-supply turbine. The pros and cons of using the two kinds of turbines in an out-of-town station are discussed at some

Card 5/7

The Selection of a High Power District Heating Turbine for Plants. 96-4-1/24

length. The advisability of installing one or the other depends on the amortisation time of the additional cost of the more expensive turbine, and a formula is given to determine this time. The main calculations were made for a district with a maximum thermal loading of 400 M kcal/hr, and ambient air temperatures of -36, -30 and -22°C. Table 2 gives annual fuel economy figures for various climatic regions and various heat-supply systems resulting from the installation of a turbine type ПБТ 0,5 - 4 with the given thermal and electrical loads. The table shows that this turbine saves more fuel than turbine type ПБТ 0,5 - 16. Calculations are also made for the open circuit system of heat-supply. The case of an out-of-town station and a peak boiler house in the town is considered. Calculations were made of the extra initial costs of the heating system with series connection of the power station and peak boiler house as compared with parallel connection. The results are given in Table 3. Graphs of the amortisation time of the initial costs against the radius of service of the thermal circuit are given in Fig. 5 and Card 6/7 relate to the climatic conditions of Moscow, with turbines

The Selection of a High Power Turbine for District Heating Plants. 96-4-1/24

$\Pi BT_{0.5-4}$ and $\Pi BT_{0.5-16}$. Similar figures were also found for other climatic conditions. As the ambient temperature gets lower and the number of hours of utilisation of the installed thermal capacity of the station increases, the amortisation time of the additional capital expenditure decreases slightly. Only two factors have a major influence on the choice of type of turbine; the initial outlay and the fuel consumption. The use of turbine type $\Pi BT_{0.5-4}$ instead of $\Pi BT_{0.5-16}$ gives about 5% overall fuel economy but greater capital cost. Assuming the climatic conditions of Moscow, and amortisation over five years, the field of application of turbine type $\Pi BT_{0.5-4}$ is indicated in Table 4 for several sizes of heating system. In most cases turbine $\Pi BT_{0.5-4}$ is more suitable and therefore recommended for development in outputs of 50 or 100 MW.

Card 7/7 There are 5 figures, 4 tables and 2 Russian references.

ASSOCIATION: All-Union Thermo-Technical Institute. (Vsesoyuznyy Teplotekhnicheskiy Institut).

AVAILABLE: Library of Congress

TIMOFEYEV, G.I.; ZINGER, O.M.

Volumetric odometrical method of determining inorganic sulfide sulfur in sedimentary rocks. Zav. lab. 31 no. 12:1448 '65 (MIRA 19:1)

1. Nizhnevolzhskiy nauchno-issledovatel'skiy institut geologii i geofiziki.

ZINGER, O.M.; MUSTAFIN, I.S.; KUL'BERG, L.M. [deceased]

Methods of identification of aromatic amines. Uch.zap. SGU 75:102-107 '62. (MIRA 17:3)

CZECHOSLOVAKIA

KAMDRAC, M.S., ELEFANT, E., ZINGER, P., VALIK, A., and HOTLIK, K., Laboratory for Endocrinology and Metabolism (Laborator pro endokrinologii a metabolismus), Faculty of General Medicine (Fakulta vseobecneho lekarstvi), Charles University, Prague, Academician J. CHARVAT [MD], director; Third Pediatric Clinic (III. detska klinika), Faculty of General Medicine, Charles University, Prague, Prof. O. VYCHYTIL, MD, director; and Second Institute of Pathological Anatomy (II. patologickoanatomicky ustav), Faculty of General Medicine, Charles University, Prague, Prof. V. JEDLICKA, MD, director [individual affiliations cannot be determined].

"Some Problems of Adrenocortical Function in the Adrenogenital Syndrome Associated With a Breakdown of the Salt Metabolism."

Prague, Casopis Lekaru Ceskych, Vol CII, No 41, Prague, 11 October 63, pp 1119-1125.

Abstract [Authors' English summary]: The following substances in the highest concentration were found in a four-month old boy suffering from adrenogenital syndrome and a breakdown of the salt metabolism in the urine: 11-keto-pregnane-3 alpha, 17 alpha, 20 alpha-triol; pregnane-3 alpha, 17 alpha-diol-20-one, pregnane-3α,20α-diol and tetrahydrocortisone. Traces of tetrahydrocortisol appeared in the urine only on the second day after ACTH stimulation. Discussed

1/2

ZINGER, P.

2 children with phenylketonuria with normal intelligence. Cesk. pediat. 18 no.8:698-700 Ag '63.

1. III detska klinika fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. dr. O. Vychytil.
(PHENYLKETONURIA) (INTELLIGENCE)

KURIN, N. V., ZINGER, P. N.

Gas Producers

Testing transport vehicles' gas generators burning wood of increased moisture content. Avt. trakt. prom., No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952, UNCLASSIFIED.

BONDARTSEV, A. S, ZINGER, R. A.

Fungi

Directions for gathering of higher forms of basidial fungi for scientific examination. Trudy Bot. inst. AN SSSR., Ser. 2, No. 6, 1950.

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

ZINGER, R. A.

Fungi

New bases for classification of Panus and the related genera. Trudy Bot. inst. AN SSSR., Ser. 2, No. 6, 1950.

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

ZINGER, RA.

Fungi

Naucoria Fries and related general in the U. S. S. R. Trudy Bot. inst. AN SSSR, Ser. 2, No. 6, 1950.

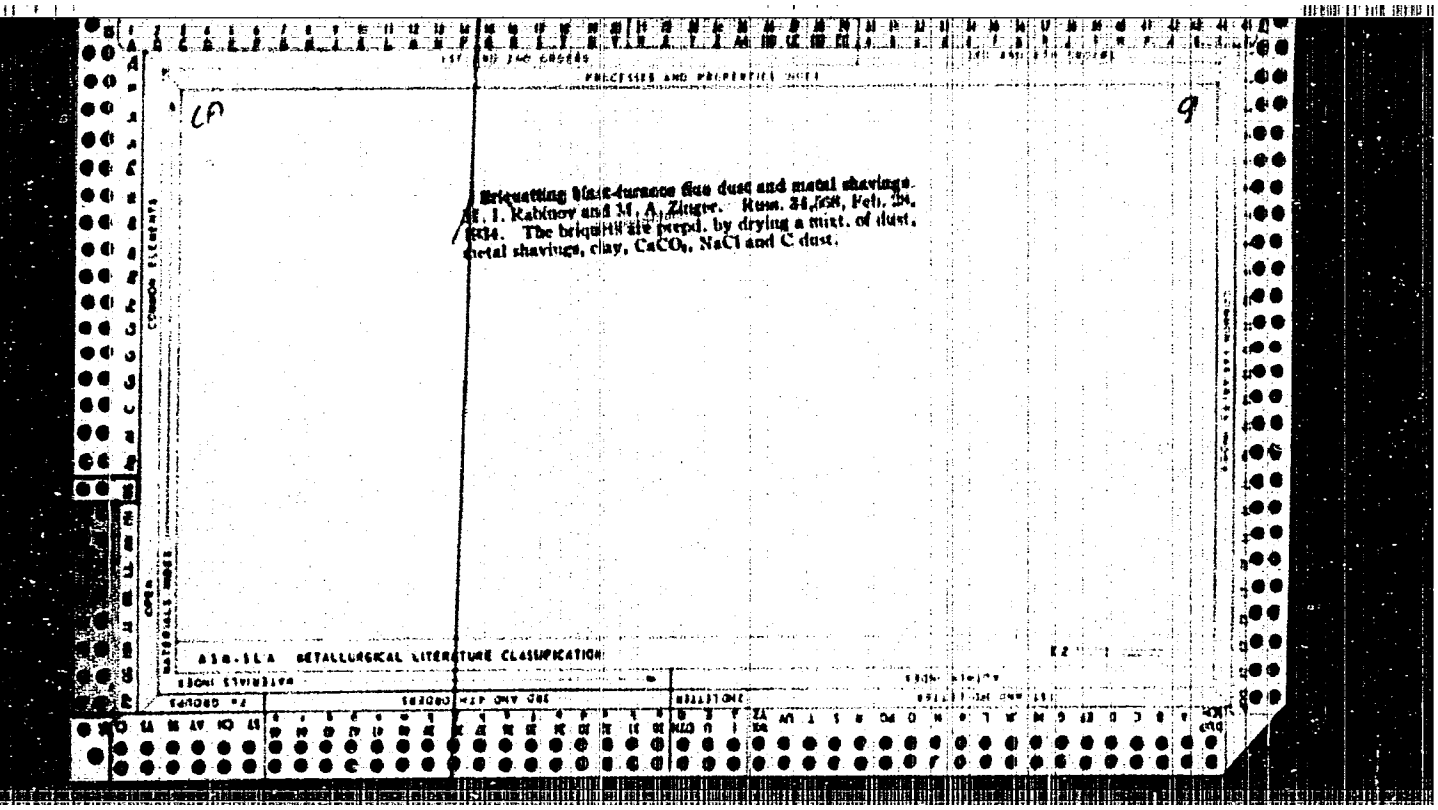
Monthly List of Russian Accessions, Library of Congress June 1952. UNCLASSIFIED.

ZINGER, R. A.

Fungi

Investigation of the genus Amanita in the U.S.S.R. Trudy Bot. inst. AN SSSR, Ser. 2, No. 6, 1950.

Monthly List of Russian Accessions, Library of Congress June 1952. UNCLASSIFIED.



Briquetting blast-furnace flue dust and metal shavings. M. I. Rabinov and M. A. Zinger. Russ. 34,768, Feb. 28, 1934. The briquettes are prepd. by drying a mixt. of dust, metal shavings, clay, $CaCO_3$, NaCl and C dust.

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D228/D307

3.2420

AUTHOR: Zinger, S. F.

TITLE: Nature and origin of the earth's radiation belts, their relation to the density of upper atmospheric layers and their geophysical effects

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 9-10, abstract 7G60 (Tr.Mezhdunar. konferentsii po kosmich. lucham, v. 3, M., AN SSSR, 1960, 59-68)

TEXT: The distribution of the particle density with altitude in the planetary atmosphere is considered. At a certain altitude the average free run of particles becomes level with the height scale; this means that from this level particles experience practically no collisions with each other. This region is called the exosphere. For the earth the exosphere's lower boundary is located at a height of 530 km. Here the atmosphere consists mainly of oxygen atoms; their concentration is $\sim 4 \times 10^7$ cm^{-3}. It is pointed out that the usual method of ascertaining the particle density distribution is

Card 1/3

S/169/62/000/007/132/149
D228/D307

Nature and origin ...

based on the assumption of thermodynamic equilibrium in the atmosphere and is unsuitable for the exosphere, since the distribution of the directions of particle velocities ceases to be isotropic at great distances from the earth. A report is given about some results of the theory developed by the author; it is based on the study of the statistical distribution of particle orbits in the exosphere. According to the data of satellite drag the temperature at the exosphere's lower boundary can be taken as equalling ~1500°K. A graph of the atomic oxygen concentration's dependence on the height (in the range 400 - 1000 km) is given. Proceeding from the theory for the formation of the earth's inner corpuscular radiation belt, the author finds that at a height of 1000 km the upper limit of atomic hydrogen concentration equals $\sim 10^6$ cm^{-3}. The duration of the existence of particles, trapped in the outer radiation belt, is determined (in the absence of magnetic disturbances) by their reaction with ions, electrons, and neutral atoms of the atmosphere's upper layers. Calculations showed that the magnetic effects, related to the drift of particles trapped in the inner and outer belts,

Card 2/3

Nature and origin ... S/169/62/000/007/132/149
D228/D307

is insufficient to explain the magnetic field disturbances observed on the ground. Therefore, the author reckons that geomagnetic disturbances are related to the capture of solar protons, moving at a speed of $\sim 2 \times 10^8$ cm·sec^{-1}, i.e. with an energy of ~20 kev. Injection becomes possible thanks to the reaction of the solar plasma cloud with the geomagnetic field, which results in the latters distortion. Owing to this, particles can penetrate into the entrapment region generally inaccessible to them. It is shown that the length of the life of trapped particles is largely governed by the exchange of charges. Proceeding from the duration of the principal phase of magnetic storms, it is estimated that the density of neutral hydrogen atoms is about 100 cm^{-3} at a distance of 5 - 8 earth radii. Protons and electrons, remaining in the entrapment region after most of the captured particles have left it, must be accelerated to much higher energies in order that they may induce auroras. It is supposed that this acceleration is due to magneto-hydrodynamic waves. An attempt is made to apply these deliberations for explaining the initial revertive pulse at the time of sudden outbreaks of magnetic storms. 13 references. [Abstracter's note: Complete translation.]

Card 3/3

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D228/D301

3.2400

AUTHOR: Zinger, S. F.

TITLE: Interplanetary dust

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 4, abstract 3G31 (V sb. Nauchn. ispol'zovaniye iskusstv. sputnikov Zemli, M., Izd-vo in. lit., 1960, 381-399)

TEXT: A simple theory is developed for the movement of charged particles of interplanetary dust in the vicinity of the earth. The following questions are considered: 1) The mean charge of dust particles; 2) diurnal and nocturnal effects; 3) the effects of solar flares; 4) the resulting hardness spectrum; 5) movement in geomagnetic and gravity fields, and the Louisville theorem; 6) the detected orbits and accumulations of particles; and 7) flows and collision zones, and the effects of magnetic storms. The main conclusions of the problems cited above are being applied to possible experimental investigations in rockets or satellites of: a) The dependence of the

Card 1/2

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Interplanetary dust D228/D301

inflow of dust particles on the geomagnetic latitude; b) the latitudinal relationship's geophysical application; c) the diurnal intensity variations; and d) the electromagnetic conditions near the earth, changes in the inflow of particles, and anisotropy. Some suggestions are made for explaining the variance between meteor data and optical measurements for the densities of interplanetary dust particles. The problem of dust particle accumulation is briefly considered. [Abstracter's note: Complete translation.]

Card 2/2

S/035/62/000/006/007/064
A001/A101

3,2420

AUTHOR: Zinger, S. F.

TITLE: The nature and origin of Earth's radiation belts, their relation to density of upper atmospheric layers and geophysical effects

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 6, 1962, 33, abstract 6A267 ("Tr. Mezhdunar. konferentsii po kosmich. lucham, 1959, v. 3". Moscow, AN SSSR, 1960, 59-68)

TEXT: The following problems are discussed in detail: change of gas density in the exosphere and hydrogen concentration at altitudes over 1,000 km. In connection with the solution of the second problem, processes are discussed which take place in the inner and outer radiation belts, as well as in the belt of magnetic storms, and geophysical effects related to the latter. There are 16 references.

B

I. Shch.-S.

[Abstracter's note: Complete translation]

Card 1/1

GRUZIN, Vadim Georgiyevich; ZINGER, S.L., red. izd-va; VAYNSHTEYN, Ye.B., tekhn. red.

[Temperature conditions in steel casting]Temperaturnyi rezhim lit'ia stali. Moskva, Metallurgizdat, 1962. 350 p. (MIRA 15:12)

(Steel--Metallurgy)
(Liquid metals--Thermal properties)

ZIMGER, S.Sh.

Capital investments and fixed assets of the sugar industry. Sakh. prom. 31 no.11:42-44 N '57. (MIRA 11:1)

1. Mosgorsovnarkhoz.

(Sugar industry)

TARASOVA, N.N.; POTANIN, N.V.; SHOKINA, N.I.; GRIN'-YATSENKO, Z.M.; ZINGER, T.I.

Clinical aspects and treatment of coli dyspepsia in infants. Sov. med. 24 no.6:54-59 Je '60. (MIRA 13:9)

1. Iz kafedry gospital'noy pediatrii (zav. - deystvitel'nyy chlen AMN SSSR prof. A.F. Tur) Leningradskogo pediatricheskogo meditsinskogo instituta na baze detskogo otdeleniya Oblastnoy klinicheskoy bol'nitsy (glavnyy vrach - zasluzhennyy vrach RSFSR A.P. Yegorova).
(ESCHERICHIA COLI) (DYSPEPSIA)

ZINGER, Y.F. [Zinher, Kh.M.]; SANDLER, E.S.

Some results of industrial testing of polyacrylamide for yarn sizing. Leh.prom. no.3:29-32 Jl-S '63. (MIRA 16:11)

DOLGORUCHENKO, L., inzh.; ZINGER, Ye.

Machines for adding carbamide and molasses to mixed feeds and feed mixtures. Muk.-elev. prom. 30 no.3:15-20 Mr '64. (MIRA 17:4)

1. Nauchno-issledovatel'skiy institut zhivotnovodstva lesostepi i poles'ya UkrSSR (for Dolgoruchenko). 2. Khar'kovskaya mashinoispytatel'naya stantsiya (for Zinger).

ZINGER, Ye., inzh.

AZhT-2 hot air ventilation unit. Muk.-elev. prom. 27 no.8:17-18 Ag '61. (MIRA 14:7)

1. Khar'kovskaya mashinoispytatel'naya stantsiya.
(Corn (Maize)—Drying))

ZINGER, Ye.

SUPRUNOV, A., inzhener; ZINGER, Ye., inzhener.

Equip flour and groats mills with heating installations. Muk. elev.prom. 20 no.12:28-29 D '54. (MLRA 8:3)

1. Khar'kovskiy trest Glavmuki.
(Flour mills)

ZINGER, Ye.

Poorly designed mixed feed sections for flour mills in operation.
Muk.-elev.prom. 22 no.3:7-8 Mr '56. (MLRA 9:7)

1.Khar'kovskiy trest Glavmuki.
(Feed mills)

ZINGER, Ye., inzh.; SUPRUNOV, A., inzh.

Efficiency improvement at mills of the Kharkov Cereal Products Office. Muk.-elev. prom. 24 no.10:18-20 O '58. (MIRA 11:12)

1.Khar'kovskoye upravleniye khleboproduktov.
(Kharkov--Grain milling)

SUPRUNOV, A., inzh.; ZINGER, Ye., inzh.

Plan for a sack-repair shop at the granary. Mukl.-elev.prom. 25 no.3:24-25 Mr '59. (MIRA 12:6)

1. Khar'kovskoye upravleniye khleboproduktov.
(Bagging) (Granaries--Equipment and supplies)

ZINGER, Ye.; IS'YEMINI, I.; COLANDSKAYA, Yu.

Testing the TPSh screw conveyer under working conditions. Muk.
-elev. prom. 27 no.12:23-24 D '61. (MIRA 15:2)

1. Khar'kovskaya mashinoispytatel'naya stantsiya.
(Conveying machinery)

ZINGER, Ye.

ZINGER, Ye., inzhener.

Improving the operation of ventilating equipment. Muk.-elev. prom. 21 no.2:30 F '55. (MLRA 8:3)

1. Khar'kovskiy trest Glavmuki.
(Fans, Mechanical)

KOGAN, A.; ZINGER, Ye., inzh.

Drying seed corn at grain procurement points in Moldavia and Kharkov Province. Muk.-elev. prom. 24 no.8:16-17 Ag '58. (MIRA 11:10)

1. Zamestitel' direktora po kachestvu Kishinevskoy realizatsionnoy bazy (for Kogan). 2. Khar'kovskoye oblastnoye upravleniye khleboproduktov (for Zinger).

(Corn (Maize)--Drying)

ZINGER, Ye., inzh.; GOLANDSKAYA, Yu., inzh.; D'YANKONOV, A., inzh.

Improve the structural features and performance of small feed mills. Muk.-elev. prom. 27 no.6:21-23 Je '61. (MIRA 14:6)

1. Khar'kovskaya mashinoispytatel'naya stantsiya Goskomiteta zagotovok Soveta Ministrov SSSR (for Zinger, Golandskaya). 2. Kaluzhskoye upravleniye zagotovok (for K'yankonov).
(Feed mills)

ZINGER, Ye., insh.

Changes improving the performance of ZGS grain loaders. Muk.-elev. prom. 27 no.2:21-22 F '61. (MIRA 14:4)

1. Khar'kovskaya mashinoispytatel'naya stantsiya Goskhlebkomiteta.
(Grain-handling machinery) (Loading and unloading)

ZINGER, Ye.M.; FIL'KIN, V.A.

Lake Baskunchak needs protection. Priroda 53 no.2:88-93 '64. (MIRA 17:2)

1. Institut geografii AN SSSR, Moskva.

ZINGER, Ye. M.

Excursion of personnel of the Institute of Geography of the U.S.S.R. Academy of Sciences. Izv. AN SSSR. Ser. geog. no.5:159 S-O '60. (MIRA 13:10)

(Physical geography--Study and teaching)

AVSYUK, G.A.; ZINGER, Ye.M.; KORYAKIN, V.S.; KOTLYAKOV, V.M.

In memory of Georgii Alekseevich Ushakov, 1901-1963.
Izv. AN SSSR. Ser. geog. no. 2:173-174 Mr-Ap '64.
(MIRA 17:5)

ZINGER, Ye.M.; KORYAKIN, V.S.

The 50th anniversary of the discovery of Severnaya Zemlya.
Izv. AN SSSR. Ser. geog. no.6:95-101 N-D '63.
(MIRA 17:1)

1. Institut geografii AN SSSR.

ZINGER, Ye.M.; ENGEL'GARDT, V.V.; YABLONSKIY, O.A.[deceased]; AVSYUK, G.A., otv. red.; OGANOVSKIY, P.N., red.

[Novaya Zemlya: Snow cover]Novaia Zemlia: Snezhnyi pokrov. Moskva, (Its Materialy gliatsiologicheskikh issledovanii) No.1.[Stationary observations at the Ledorazdel'naya and Bar'er Somneniy Stations]Statsionarnye nabliudeniia na stantsiiakh Ledorazdel'naia i Bar'er Somnenii. 1962. 131 p. No.2.[Field observations]Marshrutnye nabliudeniia. 1962. 103 p. (MIRA 16:3)

1. Akademiya nauk SSSR. Institut geografii.
(Novaya Zemlya—Snow)

ZINGER, Yevgeniy Maksimovich; MITIN, R.S., red.; KONOVALYUK, I.K., mladshiy red.; VILENSKAYA, E.N., tekhn. red.; BURLAKA, N.P., tekhn. red.

[On the glaciers of Novaya Zemlya; notes of a member of the expedition] Na lednikakh Novoi Zemli; zapiski uchastnika ekspeditsii. Moskva, Gos. izd-vo geogr. lit-ry, 1962. 157 p. (MIRA 15:4)

(Novaya Zemlya--Discovery and exploration)

ZINGER, Ye.Ye.

Conditions governing the use of mine waters for human needs in coal mines. Gig. i san. 24 no.9:81 S '59. (MIRA 13:1)

1. Iz Stalinskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(MINE WATER)

ZINGER, Ye.M.; KORYAKIN, V.S.

Recent glaciation of Severnaya Zemlya. Izv. Vses. geog. ob-va 96 no.6:471-479 N-D '64 (MIRA 18:1)

ZINGER, Ye.Ye.

ZINGER, Ye.Ye., sanitarnyy vrach.

Some aspects of preventive sanitary inspection in coal industry.
Gig. i san. 22 no.5:59-61 My '57. (MIRA 10:10)

1. Iz Stalinskoy gorodskoy sanitarno-epidemiologicheskoy stantsii
(MINER,
prev. sanit. measures in coal mines (Rus))

ZINGER, Ye.Ye.

ZINGER, Ye.Ye., sanitarnyy vrach.

Some aspects of preventive sanitary inspection in coal industry. Gig. i san. 22 no.5:59-61 My '57. (MIRA 10:10)

1. Iz Stalinskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (MINER, prev. sanit, measures in coal mines (Rus))

YUZANOVA, M.A., sanitarnyy vrach; ZINGER, Ye.Ye., sanitarnyy vrach

Improving working conditions in plants for the production of high-grade electrodes. Gig. i san. 22 no.1:80-81 Ja '57. (MLRA 10:2)

1. Iz sanitarno-epidemiologicheskoy stantsii Stalino
(INDUSTRIAL HYGIENE,
in electrode prod. plants (Rus))

ZINGER, Ye.Ye. (Stalino)

Causes of the spread of pneumokoniosis among miners of different collieries. Gig. truda i prof. zab. 4 no.4:47 Ap '60.
(MIRA 15:4)

1. Donetskiy institut fiziologii truda.
(COAL MINERS--DISEASES AND HYGIENE)
(LUNGS--DUST DISEASES)

ONOPKO, B.N., otv. red.; NAVAKATIKYAN, A.O., zam. otv. red.; BLAGOVESHCHENSKAYA, I.N., red.; VEREZHNIKOVA, A.V., red.; GALUSHKA, F.P., red.; ZINGER, Ye.Ye., red.; LYUBOMUDROV, V.Ye., red.; MAKSIMOVICH, V.A., red.; OKUN', M.I., red.

[Basic problems of hygiene, industrial physiology and occupational pathology in the leading branches of Donets Basin industries; scientific session of May 1964; abstracts of the reports] Osnovnye voprosy gigieny, fiziologii truda i professional'noi patologii v vedushchikh otrasliakh promyshlennosti Donbassa; nauchnaia sessiia, mai 1964 g.; tezisi dokladov. Donetsk, 1964. 147 p.
(MIRA 18:1)

1. Donetsk. Nauchno-issledovatel'skiy institut fiziologii truda.

GOLOVCHENKO, V.P.; ZINGER, Yu.A.

Choice of a method for feeding a substance into the gap between the electrodes of the light source. Fiz.sbor. no.4:464-468 '58. (MIRA 12:5)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G.Shevchenko.
(Spectrum analysis)

Zinger, Yu.A.

24(7) PHASE I BOOK EXPLOITATION SOV/1700

L'vov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956. t. II: Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol 2: Atomic Spectroscopy) [L'vov] Izd-vo L'vovskogo univ., 1958. 568 p. (Series: Its: Fizicheskiy sbornik, vyp. 4(9)) 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.S. Neporent, Doctor of Physical and Mathematical Sciences; I.L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical and Mathematical Sciences; V.G. Koritskiy, Candidate of Technical Sciences; S.M. Rayskiy, Candidate of Physical and Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Mathematical Sciences; V.S. Miliyanchuk (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Glauberman, Doctor of Physical and Mathematical Sciences; Ed.: S.L. Gazer; Tech. Ed.: T.V. Saranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

Card 2/31

Materials of the 10th All-Union Conference (Cont.) SOV/1700

Nikitina, O.I. Results of Developing the Spectrochemical Analysis Method for Open-hearth Slags 455

Nikitina, O.I. Spectral Lines 3006.72 and 3020.00 Å 463

Golovshenko, V.P., and Yu.A. Zinger. Selecting the Method of Feeding Samples Into the Interelectrode Gap of the Light Source 464

Karbutovskikh, T.S., and O.D. Frenkel'. Use of Moving Carbon Electrodes in the Analysis of Powders and Solutions 468

Likhoded, L.E., and N.I. Nosenko. Quantitative Spectrum Analysis of Cements for Al_2O_3, Fe_2O_3, SiO_2, MgO, and CaO 471

Koleshkova, A.F. Spectrum Analysis of Refractory Clays and Chamotte Refractories 474

Kais, S.M. Method for Quantitative Spectrum Analysis of Refractory Clay for Calcium, Magnesium, Titanium, and Iron Admixtures 477

Card 26/31

FOMIN, Ya.; SUBBOTIN, A.; YAILENOK, G., inzh.; ZINGER, Z.

Readers' letters. NTO 3 no.11:63 N '61. (MIRA 14:10)

1. Predsedatel' soveta nauchno-tekhnicheskogo obshchestva Kuznetskoy obuvnoy fabriki Penzenskogo sovnarkhoza (for Fomin). 2. Zamestitel' predsedatelya Latviyskogo pravleniya Nauchno-tekhnicheskogo obshchestva sel'skogo i lesnogo khozyaystva (for Subbotin). 3. Predsedatel' oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva gorodskogo khozyaystva i avtotransporta (for Zinger).
(Research, Industrial)

ZINGER, Z.; ORLOVSKIY, I. (Orel); MATOV, N.; FEDOTENKO, N.; ORLEHIN, A.; inzh.; BARANOV, V.

Each enterprise should have a primary organization of the scientific technological society. NTO 2 no.4:60 Ap '60. (MIRA 13:6)

1. Predsedatel' Kuybyshevskogo oblastnogo pravleniya nauchno-tekhnicheskogo obshchestva gorodskogo khozyaystva i avtotransporta (for Zinger). 2. Predsedatel' soveta pervichnoy organizatsii Nauchno-tekhnicheskogo obshchestva Mozhayskogo lesopromkhoza, Moskovskaya oblast' (for Matov). 3. Zamestitel' predsedatelya TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (for Fedotenko).
(Technical societies)

RABINOVICH, M.V.; ZINGER, Z.E.

In the Scientific and Technical Society. Avt.dor. 24 no.4:31 Ap '61. (MIRA 14:5)

(Highway research)

PLESKOW, N. & ZINGERENKO, A.

Teknika Lacznosci Dalekosieznej (Technology of Long Distance Communication). Wydawnictwo Ministerstwa Obrony Narodowej, Warsaw, 1955.

This book discusses transmittion of electrical signals in the field of telecommunications. It discusses methods of developing a system of long distance communication.

ZINGERENKO, A. M.

USSR/Electronics-Transmission

FD-2670

Card 1/2 Pub. 90-2/12

Author : Zingerenko, A. M., Active Member, VNORiE

Title : Determination of the length of time of increase of transient functions by means of the amplitude-frequency characteristics of transmission systems

Periodical : Radiotekhnika, 10, 8-20, Jul 55

Abstract : Formulas are derived for determination of the ascending period of transient functions by means of the amplitude-frequency characteristics of transmission systems. The transient functions are examined for cases when dc, ac, and fluctuating-frequency potentials are applied. Simple relationships are established between the duration of transient functions and the amplitude-frequency characteristics of the system. Determination of the duration of the ascending portion of a transient function is of prime importance for evaluation and comparison of various methods of signal transmission by telegraph, television, and phototelegraph. The analysis is based on the fact that the major part of of the ascending portion of the transient function is linear,

Abstract : thus permitting a simplified, approximation solution. Graphs. Five references: all USSR.

Institution : All-Union Scientific and Technical Society of Radio Engineering and Electric Communications imeni A. S. Popov (VNORiE)

Submitted : May 28, 1953

ZINCHENKO, A.M.

Distortion of telegraph signals in a voice-frequency telegraph channel under the effect of impulse noise. Elektrosviaz' 10 no.6: 63-70 Je '56. (MLRA 9:8)
(Telegraph) (Modulation (Electronics))

ZINGERENKO, A. M.

Category : USSR/Radiophysics - Application of radiophysical methods I-12

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2077

Author : Zingerenko, A.M.

Title : Distortion of Duration of Telegraph Pulses under the Influence of Fluctuation Noise in a Frequency-Modulation System

Orig Pub : Radiotekhnika, 1956, 11, No 3, 70-80

Abstract : An equation is derived for the change in frequency resulting in the transmission of f-m signals and under the influence of fluctuation noise, and the mean-squared errors in the duration of the telegraph pulses are determined. It is shown that the mean-squared errors depend on the filter bandwidth, on its ratio to the frequency deviation, and on the speed of telegraphy. The optium ratio is determined for the receiver filter bandwidth to the frequency deviation necessary to reduce the mean-squared errors under the influence of fluctuation noise to a munimum.

Card : 1/1

ZINGERENKO, A. M.

Category : USSR/Radiophysics - Application of radiophysical methods I-12

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 2078

Author : Zingerenko, A.M.
Title : Distortion of a Telegraph Pulse in a Tonal-Telegraphy Channel Under the Influence of Pulse Type Noise.
Elektrosvyaz' 11 no.2:33-42, 1957

Abstract : Discussion of distortion in a-m and f-m channels. It is shown that the distortion of pulse duration is independent of the channel bandwidth in the case of pulse-type noise. The attenuation of pulse-duration distortion is 3.5 times greater in an f-m channel than in an a-m channel.

Card : 1/1

ZINCHENKO, A.M., Doc Tech Sci--(diss) "Transition processes and impulse distortions in the channels of tonal telephony under the effect of interference, instability of carrying frequencies and selective fading." Mos, 1958. 15 pp (Min of Communications USSR. Mos Electrical Engineering Inst of Communications), (KL, 31-58, 102)

-11-

ZINCHENKO, A.M.

Determining the steepness of amplitude growth, the initial phase, and frequency at the output of an electric filter in the case of their sudden change at the input of the filter. Radiotekhnika 8 no.6:3-13 N-D '53. (MLRA 11:6)

(Electric filters)

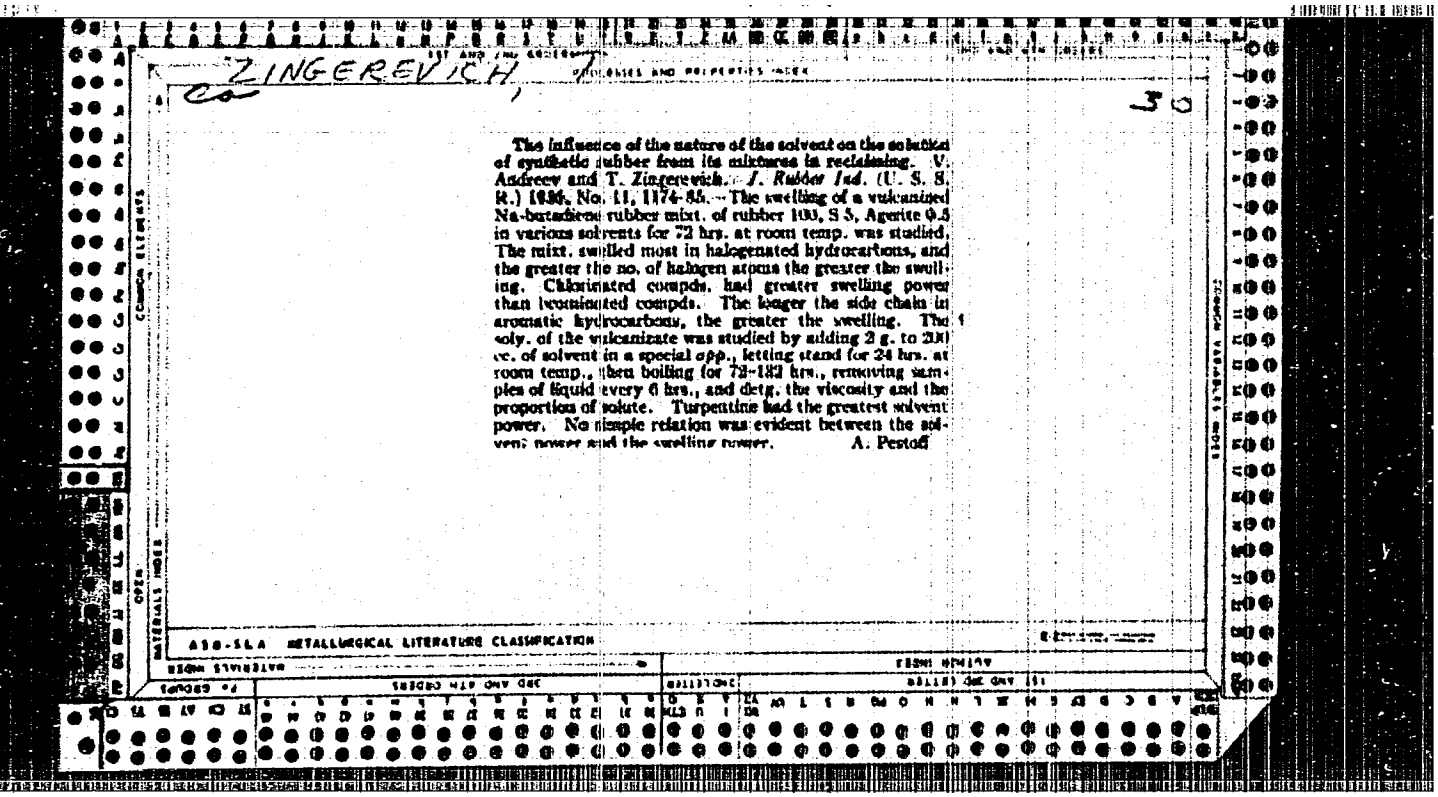
ZINGERENKO, A.M.

Vliianie odnoi parallel'noi tsepi na druguiu pri nesoglasovannykh nagruzkakh. (Elektrosviaz', 1941, no. 3, p. 69-70)

Title tr.: The interaction between two parallel lines when the loads are not matched.

TK4.E744 1941

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955



ZINGEREVICH, I.

30

The influence of the nature of the solvent on the solution of synthetic rubber from its mixtures in reclaiming. V. Andreev and T. Zingerevich. *J. Rubber Ind.* (U. S. S. R.) 1936, No. 11, 1174-85.—The swelling of a vulcanized Na-butadiene rubber mixt. of rubber 100, S 5, Agerite 0.5 in various solvents for 72 hrs. at room temp. was studied. The mixt. swelled most in halogenated hydrocarbons, and the greater the no. of halogen atoms the greater the swelling. Chlorinated compds. had greater swelling power than brominated compds. The longer the side chain in aromatic hydrocarbons, the greater the swelling. The soly. of the vulcanizate was studied by adding 2 g. to 20 cc. of solvent in a special *app.*, letting stand for 24 hrs. at room temp., then boiling for 72–132 hrs., removing samples of liquid every 6 hrs., and detg. the viscosity and the proportion of solute. Turpentine had the greatest solvent power. No simple relation was evident between the solvent power and the swelling power. A. Pestoff

ZINGERMAN, A.; ROTSHTEYN, L.; SHTEYYENT, L.

The "Baikal" radio phonograph. Radio no.5:27-31 My '57.
(Phonograph) (MLRA 10:6)

"Radio Receiver 'Baykal,'" by A. Zingerman, L. Kotelnitsyn and L. Shtayyert, Radio, No 5, May 57, pp 27-31

The Berdsk Radio Plant is beginning the production of a new six-tube superheterodyne radio receiver and phonograph combination "Baykal." This set is designed for reception of AM and VHF-FM radio on the following wave bands: LW--150 to 415 kc; MW--520 to 1,600 kc; SW--8.5 to 12.1 Mc and 3.95 to 7.5 Mc; and VHF-FM--64.5 to 73 Mc.

The power consumption of the set is 45 w and the output of the receiver is 2 w; sensitivity varies from 30 to 80 microvolts, and the image channel selectivity varies from 20 to 40 decibels. Only five tubes are used in the AM reception, and then have the following functions: tube 6I1P functions as a local oscillator and mixer, 6K4P as an IF amplifier, 6Kh2P as a demodulator, 6N2P and 6P14P as power amplifiers. The tube 6N3P is used in VHF-FM reception, and functions as a RF amplifier and converter.

The intermediate frequencies used in the set are: 465 kc for AM reception and 8.4 Mc for VHF-FM reception. The tube 6Kh2P generally performs the functions of two tubes, i.e., it combines detection for both AM and FM reception.

The receiver chassis and two 1-GD5-III loudspeakers are mounted in a wooden cabinet, 520 X 350 X 363 mm. The receiver has a piezoelectric sound pick-up and recording device. Several ferrite cores are incorporated into this receiver. (U)

Sum ; N 1451